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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/710,539 11/09/00 ELDRIDGE

B 276440-3

EXAMINER

MM91/0829

BRIAN M BERLINER
O'MELVENY & MYERS LLP
400 SOUTH HOPE STREET
LOS ANGELES CA 90071-2899

NGUVEN, S

ART UNIT

PAPER NUMBER

2839
DATE MAILED:

08/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/710,539

Applicant(s)
Eldridge Etal.

Examiner
Son Nguyen

Art Unit
2839



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jun 26, 2001

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-70 is/are pending in the applica

4a) Of the above, claim(s) 22-24, 28-37, 42-47, and 65-70 is/are withdrawn from considera

5) ☐ Claim(s) is/are allowed.

6) ☒ Claim(s) 1-21, 25-27, 38-41, and 48-64 is/are rejected.

7) ☐ Claim(s) is/are objected to.

8) ☐ Claims are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 7

20) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Claims 22-24, 28-37, 42-47 and 65-70 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3-4 and 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 4, line 2, there is no antecedent basis for "the plane of said substrate."

Claim 26 can not depend on itself.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 9, 13, 18-20, 25, 38-41, 48 and 56-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Grabbe et al. (US 5,152,695).

Grabbe et al. discloses a microelectronic spring structure [10, figures 1 and 3-4] comprising:

- a base [20] formed of a resilient metal material and electrically mounted on a conductive layer formed on a substrate [14];

- a cantilever beam [22, figure 3-4] integrally extending from a first end of the beam [38] and having a step portion at the first end;

- a tip [36] positioned at a second end of the beam;

- the beam has a substantially uniform thickness [figure 3];

- an area of moment of inertia at a nipple [26] substantially greater than a width multiplied by the cube of a thickness and divided by twelve;

- the beam is deflected toward the substrate of at least 10% of an original unloaded height;

- the beam is contoured in both lengthwise and widthwise direction [figure 3]; and

- the beam is free of any overlapping portion and has a generally triangular shape viewed in a direction normal to the substrate.

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-8, 10-12, 14-17, 22-24, 26-37, 42-47, 49-55, 60-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grabbe et al.

Grabbe et al. discloses the instant claimed invention except for the beam and the conductive layer comprises various dimensions, materials, springs rates and deflection ranges.

It would have been an obvious matter of the design choice to have the beam and the conductive layer comprises various dimensions, materials, springs rates and deflection ranges, since such a modification would have involved a mere change in the shape and material of a component. A change in shape and material is generally recognize as being within the level of ordinary skill in the art. In re Dailey, 357 F.2d 669 USPQ 47 (CCPA 1966) and In re Leshin, 125 USPQ 416.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grabbe et al. and Babuka et al. (US 4,553,192).

Grabbe et al. discloses the instant claimed invention except for the beam is generally V-shaped in cross-section.

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Babuka et al. discloses a beam [16, figure 2] having a generally V-shaped cross-section in a direction along a length of the beam.

It would have been obvious to one having ordinary skill in the art at the time invention was made to modify the beam of Grabbe et al. to provide the V-shaped cross-section as taught by Babuka et al. for the purpose of providing more flexibility/resilient.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Grabbe (US 5,173,055), Grabbe (5,228,861) and Rothenberger (US 5,462,440), show the alternate designs of the electrical contacts.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son Nguyen whose telephone number is (703) 308-8745.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reach on (703) 308-3119. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782.

SN

Son Nguyen

August 22, 2001


NEIL ABRAMS
EXAMINER
ART UNIT 322